The flower and leaf proceed from the end of a horizontal, fleshy, abrupt root, fed by numerous radicles. This root makes offsets from its sides, which separate as the old root decays, acquiring by this separation the abrupt or premorse form.

Externally the colour of the root is a brownish red. Internally it is pale, and when divided emits a bright orange coloured juice from numerous points of its surface. The bud or hybernaculum, which terminates the root, is composed of successive scales or sheaths, the last of which acquires a considerable size, as the plant springs up. By dissecting this hybernaculum in the summer or autumn, we may discover the embryo leaf and flower of the succeeding spring, and with a common magnifier, even the stamens may be counted.

The Sanguinaria is smooth throughout. The leaves grow on long channelled petioles. When spread out, they are reniform or heart shaped, with large roundish lobes separated by obtuse sinuses. The under side is strongly reticulated with veins; it is paler than the upper, and at length becomes glaucous. The scape is round, rises in front of the petiole, and is infolded by the young leaf. The calyx consists of two concave, ovate, obtuse leaves, which are perfect in the bud, but fall off when the corolla expands. Petals eight,

spreading, concave, obtuse, the alternate or external ones longer, so that the flower has a square appearance. This is its natural character, although cultivation sometimes increases the number of petals. Stamens numerous, with oblong yellow anthers. Germ oblong, compressed, style none, stigma thick, somewhat two lobed. Capsule oblong, acute at both extremities, two valved. Seeds numerous, roundish, compressed, dark shining red, half surrounded with a peculiar white vermiform appendage, which projects at the lower end.

After the flower has fallen, the leaves continue to grow, and by midsummer have acquired so large a size as to appear like a different plant.

The root of this vegetable is the only part which I have submitted to chemical examination. The experiments made on this substance, gave evidence of the following constituent principles.

1. A peculiar resin. Alcohol comes off from the root strongly impregnated with its colour and taste. This solution is rendered turbid by the addition of water. When evaporated to dryness, it leaves a residuum partially, but not wholly soluble in water. When successive quantities of water have been agitated with the powdered root until the infusion comes off colourless, alcohol acquires

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